

REMARKS:

Claim 22 is rejected in the Office Action under 35 USC 102(e) as being anticipated by Drury et al. Claim 22 is directed to a location management apparatus which is located in a mobile communication network communicating with a mobile station. The location management apparatus recited in claim 22 as amended above comprises, among other limitations, (1) a transportation location finder that identifies a communication area where the transportation is situated, based on movement information obtained from a traffic control that manages an operation of a transportation system including the transportation on which the mobile station is being carried, and (2) a paging control configured to, when a call is to be delivered to the mobile station, access the location information storage so as to find the communication area determined by the transportation location finder and cause a paging signal transmitted within the communication area to page the mobile station. Applicants respectfully submit that there is nothing in Drury that discloses or suggests the above two limitations claimed in claim 22.

The present invention contemplates the situation where a mobile station is being carried on a transportation, such as a train. People on a train usually carry their mobile stations, such as cellular phones, with them. Simultaneous registrations of these cellular phones, each time the train enters a new communication area, cause heavy air traffic. To prevent causing heavy air traffic, these mobile stations, once onboard a transportation, cease sending registration signals.

Normally, movement of a mobile station is tracked with reference to the communication area in which the mobile station is situated. When a call is to be delivered to the mobile station, the mobile station is first paged in the communication area. Paging is carried out by sending out a paging signal from all the base stations located in the communication area. A call is then delivered to the base station through which the mobile station has responded to the paging signal.

This normal paging operation is not performed in the present invention. In the present invention, a mobile station does not send registration signals while on a transportation. Instead, in the present invention, the location of a mobile station being

on a transportation is identified with reference to the transportation (see the limitation of a "location information storage" recited in claim 22). To deliver a call to a mobile station being on a transportation or to page a mobile station being on a transportation, the communication area in which the transportation is situated is determined.

To determine the communication area in which the transportation is situated, claim 22 recites a transportation location finder. The transportation location finder uses movement information obtained from a traffic control that controls an operation of a transportation system including the transportation on which the mobile station is being carried. The paging control then causes a paging signal transmitted within the communication area determined by the transportation location finder.

Drury discloses a vehicle navigation system which includes an in-vehicle system and a centralized server. The server communicates wirelessly with the in-vehicle system. The server is capable of communicating with the in-vehicle system, using the wireless communication network. Also, the server receives location information of the vehicle from the in-vehicle system.

However, the Drury system is not a telephone system and thus silent about the ideas of communication areas or paging operation. The paging operation is an operation performed exclusively within a wireless telephone network. Drury has nothing to do with a telephone system. The Drury server is located outside the wireless telephone network and just uses the wireless telephone network to communicate with the in-vehicle system.

Besides, claim 22 recites the transportation location finder that identifies a communication area in which the transportation is situated, based on movement information obtained from a traffic control that manages an operation of a transportation system including the transportation on which the mobile station is being carried. There is nothing in Drury that discloses or teaches the transportation location finder recited in claim 22. Thus, Drury cannot anticipate claim 22 as amended above.

Ushiki et al. (US2001/0049282) does not disclose or teach the transportation location finder, either. Therefore, claim 22 should also be allowable over Ushiki.

In the above amendment, Applicants have added new claims 42-48. The subject matters recited in these new claims are neither disclosed nor taught by either Drury or Ushiki.

Respectfully submitted,

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Tadashi Horie
Registration No. 40,437
Attorney for Applicant(s)

BRINKS HOFER GILSON & LIONE
P.O. Box 10395
Chicago, IL 60610
(312) 321-4200